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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,129	12/19/2003	Oleg Kiselev	VRT0058P2US	5024
33031	7590	11/18/2005		
CAMPBELL STEPHENSON ASCOLESE, LLP 4807 SPICEWOOD SPRINGS RD. BLDG. 4, SUITE 201 AUSTIN, TX 78759			EXAMINER RUTZ, JARED IAN	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Allowability

Application No.

10/742,129

Examiner

Jared I. Rutz

Applicant(s)

KISELEV ET AL.

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/19/2003.
2. ☒ The allowed claim(s) is/are 1-8, 14-21 and 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 1142005.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. Claims 1-8, 14-21 and 23 as filed on 12/19/2003 are pending in the instant application, claims 9-13 and 22 having been non-elected in a telephonic restriction on 11/3/2005. Of the pending claims, there are 3 independent claims and 15 dependent claims.

Election/Restrictions

2. A telephonic restriction between the examiner and Applicant's designated representative Eric Stephenson was performed on 11/3/2005. Applicant was advised that a restriction was required between group 1, consisting of claims 1-8, 14-21, and 23, and group 2, consisting of claims 9-13 and 22. Group 1 was elected without traverse.

3. **Elected claims 1-8, 14-21, and 23** are drawn to a method involving receiving a request for data, reading the requested data from a mirror, receiving a second request for the same data, and reading the data from a different mirror.

4. **Non-elected claims 9-13 and 22** are drawn to a method comprising receiving a request to read data, reading the requested data from multiple mirrors, comparing the data from the multiple mirrors, and making a record of the data read if all copies of the data are not the same.

5. The inventions represented by groups 1 and 2 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions require

response to the same action, receiving a first and second request to read data, in different ways. Group 1, shown by figure 4, reads data from a mirror in response to receiving the first read request, and reads data from a second mirror if a second read request is received. Group 2, shown by figure 5, reads data from all mirrors in response to receiving the first read request. There is no disclosure of how the two inventions could be used together.

Priority

6. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

Drawings

7. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

EXAMINER'S AMENDMENT

8. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

9. This application is in condition for allowance except for the presence of claims 9-13 and 22 to an invention non-elected in a telephonic restriction on 11/3/05 without traverse. Accordingly, **claims 9-13 and 22 have been cancelled.**

a. Original claims 1-8, 14-21, and 23 have been renumbered as follows:

Original claim numbering	1-8	14-16	17-18	19-21	23
New claim numbering	1-8	9-11	15-16	12-14	17

Reasons for Allowance

10. **Claims 1-8, 14-21, and 23** are allowed.

11. The following is an examiner's statement of reasons for allowance:

b. **Claims 1, 14, and 23** each recite the limitations "*receiving a second read request, wherein the second read request is received from the computer system, wherein the second read request is received subsequent to the first read request, and wherein the first and second read request are for the same data*" and "*reading data stored in an alternate mirror of the data volume in response to receiving the second read request.*" (emphasis added)

c. Systems of using mirrored data to prevent data loss are well known in the art. The instant application distinguishes itself over the prior art by requiring that when a second read request is received for the same data, the data be read from a different mirror than it was initially read from. It is well known to read a backup copy of data in the event that the initial copy is in error, however in prior art systems the requesting computer system requests the backup copy of the data. Although the backup copy of the data should hold the same information as the first requested copy, it is not the same data; it is a copy of the same data.

Accordingly, the instant application differs from the prior art by requiring that the second request be for the same data, and not for a different copy of data.

d. Additionally, it is known in the art that different mirrors may be used to respond to a request for data. However, in systems such as these a mirror is chosen as being the mirror that a request is serviced from based on some criteria. There is no requirement in such systems that a second request must be made to a different mirror than the mirror used to service the first read request.

Accordingly, the instant application differs from the prior art by specifying that a different mirror be used to service a second request than the mirror used to service the first request.

e. **Claims 2-8** depend from claim 1 and **claims 15-21** depend from 14, and therefore are allowable for at least the reasons stated supra with respect to claims 1 and 14.

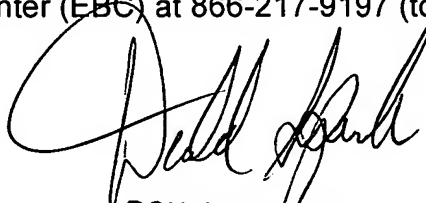
12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared I. Rutz whose telephone number is (571) 272-5535. The examiner can normally be reached on M-F 8:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DONALD SPARKS
SUPERVISORY PATENT EXAMINER

Jared I Rutz
Examiner
Art Unit 2187